

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

After entry of the foregoing amendment, Claims 1-5 and 7-22 are pending in the present application. The present amendment amends Claims 7-11, 15-17, and 20-22. No new matter is added.

In the outstanding Office Action, Claims 1-5, 8-13, 21, and 22 were rejected under 35 U.S.C. 103(a) as unpatentable over U.S. Patent No. 6,172,700 to Obata in view of JP 2001-138568 to Yamanaka et al. (hereinafter "Yamanaka"); Claims 7 and 16-19 were rejected under 35 U.S.C. 103(a) as unpatentable over Obata and Yamanaka in view of JP 8-118722 to Sawada,¹ and Claims 14, 15, and 20 were indicated as including allowable subject matter.

Applicant thanks the Examiner for the indication of allowable subject matter. Applicant further thanks the Examiner for the courtesy of the interview conducted July 28, 2005. During the interview, Applicant's representatives and Examiner Pham discussed amending the independent claims to replace "light emitting devices that are located **on and near** an edge of the light emitting device array chip" with "light emitting devices that are located **closest and next closest to** an edge of the light emitting device array chip"; and amending independent Claims 11, 21, and 22 to more clearly distinguish "a gradient of an approximated line for exposure areas" as a mathematical expression (as opposed to a line drawn or visualized from one exposure area to another).

Addressing now the rejections of all pending claims (summarized above) under 35 U.S.C. 103(a) as unpatentable over Obata, those rejections are respectfully traversed.

Though they are different in scope, each of the independent Claims 1, 9, and 10 recites that "the light volume of the light emitting devices that are located closest and next

¹ The statement of rejection at page 5 of the Office Action incorrectly states that Claims 16-20 are rejected as unpatentable over Obata, Yamanaka, and Sawada. Examiner Pham and Applicant's representative have confirmed that Claims 7 and 16-19 are rejected as unpatentable over that combination of references.

closest to an edge of the light emitting device array chip can be set differently from other light emitting devices excluding the closest and next closest light emitting devices". Claims 2-5, 7, and 8 depend from Claim 1.

Applicant's Figure 22 illustrates a non-limiting example of the claimed "closest and next closest" light emitting devices as X_5 and X_4 , respectively, and as Y_1 and Y_2 , respectively.

The outstanding Office Action cites Obata as teaching the previously claimed "light emitting devices on and near an edge of the light emitting device array chip". Applicant presumes the Examiner is citing the third and fourth columns of light emitting devices ("LED's"), shown in Obata's Figures 14A and 14B, as teaching the above feature. The third and fourth columns are respectively arranged on separate LED array chips. Thus, the third and fourth columns include the LED's closest to the edges of their respective chips. The second and fifth columns include the LED's next closest to the edges of their respective chips. The first and sixth columns include the other LED's excluding, i.e., not including, the closest and next closest LED's.

As shown, only the light volumes of the LED's closest to the edges of the chips, i.e., the LED's of the third and fourth columns, are set differently from the other LED's of the first and sixth columns. The light volumes of the LED's next closest to the edge of the chips, i.e., the LED's of the second and fifth columns, are not set differently than the other LED's of the first and sixth columns. Thus, Obata does not teach that the "light volume of the light emitting devices that are located closest and next closest to an edge of the light emitting device array chip can be set differently from other light emitting devices excluding the closest and next closest light emitting devices" (as claimed).

Though they are different in scope, each of independent Claims 11, 21, and 22 recites “a calculated gradient of an approximated linear regression for exposure areas”. Claims 12-20 depend from Claim 11.

Applicant’s Figure 24 illustrates a non-limiting example of the claimed gradient.

As noted above, during the interview, Examiner Pham indicated that the previously claimed gradient could be broadly interpreted as meaning a line drawn or visualized from one exposure area to another. Applicants submit that the gradient of amended Claims 11, 21, and 22 is now clearly defined as a linear regression of light volume values, i.e., as a mathematical expression.

Applicants also note that each of Claims 11, 21, and 22 recites “the light volume of the light emitting devices that are located closest and **next closest** to an edge of the light emitting device array chips **are set up** such that said gradient corresponds to an interval [Pa] between the light emitting device closest to the edge of one of the light emitting device array chips and the light emitting device closest to the edge of an adjacent one of the light emitting device array chips”. As shown in Obata’s Figures 14A and 14B, Obata does not set the “next closest” LED’s of the second and fifth columns in accord with an interval between the “closest” LED’s of the third and fourth columns. Rather, Obata only sets the “closest” LED’s of the third and fourth columns in that manner.

Neither Yamanaka nor Sawada are believed to cure the above-noted deficiencies of Obata.

Accordingly, for the above-stated reasons, Applicant respectfully requests that the rejection of Claims 1-5, 8-13, 21, and 22 under 35 U.S.C. 103(a) as unpatentable over Obata in view of Yamanaka be withdrawn; and that the rejection of Claims 7 and 16-20 under 35 U.S.C. 103(a) as unpatentable over Obata and Yamanaka in view Sawada be withdrawn.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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